

## SYSTEM INFORMATION

## APPLICATIONS

The **Novatronic C2** is applicable on preparation and moulding plants in the heavy clay and fine ceramics industry:

- pan mills, shredders
- single- and double shaft mixers
- rotary screen feeders
- vacuum aggregates

The moisture, respectively the plasticity is set with water, steam or drying agents, depending on the installation. Also in different combinations.

## CHARACTERISTICS

The **Novatronic C2** is designed with a 35 years' experience and the state of the art possibilities of control technologies.

**Novatronic C2** is a system wherein by means of configuration of specific software modules all experienced control structures can be realised without changing the hardware.

Even a configuration change-over from single loop control to a cascade structure or different parameter setups is possible. An optional serial interface permits the integration of the system into an overriding master structure. Computer-aided configuration and commissioning guarantee a high system efficiency. A clear and simple user menu provides a good acceptance of the system.

## COMPONENTS

- Controller **Novatronic C2**
- configurable, digital special control system with an integrated control panel and three LED displays, easy to operate
- 4 analog inputs for standard signals (0/4 to 20mA), (0 to 10V)
- 2 analog outputs for electro-pneumatic valves or frequency transformers for dosage of drying agents
- 2 binary outputs for dosing valves, pulse-width modulated
- binary inputs and outputs for control functions
- minimum and maximum alarm levels
- external setpoint and feed forward control
- serial interface for configuration

## PLASTICITY AND MOISTURE SENSORS

- piezoresistive special pressure transmitter for moulding pressure optional with temperature sensor PT 100 and display stations / displays in various designs.
- optical non-contact moisture measurement working with the NIR technology.
- more moisture sensors according to customer requirements and application available

## DOSING UNITS FOR WATER AND STEAM

## Dosing units for water

- throughput with piston lifting 1 mm at 1.0 bar 0... 500 l/h, at 3.0 bar 0... 2500 l/h
- throughput with piston lifting 2 mm at 1.5 bar 0... 1250 l/h, with 3.0 bar 0... 2500 l/h
- connection 3/4"
- ready-to-install assembled

By sensitive water lines and / or high throughput electro-pneumatically proportional regulating valves preferred

- size DN 15 - DN 50
- throughput at 3,0 bar from 1800 l/h to 15.500 l/h
- ready-to-install assembled

## Dosing units for steam

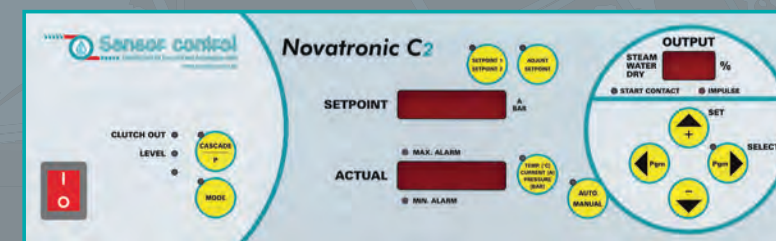
From DN 25 to DN 65 with electro-neumatically proportional regulating valves for additions at 8 bar from 625 kg/h to 3750 kg/h

- ready-to-install assembled

## MÁS SENSORES Y COMPONENTES

- Transmitter for DC and AC
- Belt scale for determining the flow rate by weighing
- Band switch for determining of the flow rate depending belt speed and level
- Level measurement to monitoring the material consumption in silos, container and hopper
- Data logger
- Frequency transformer for the drive of dosing devices for drying agents

**FROM OUR EXPERIENCE OF MANY SUCCESSFUL INSTALLATIONS, WE OFFER IMPRESSIVE, INNOVATIVE PLANT CONCEPT DESIGNS.**



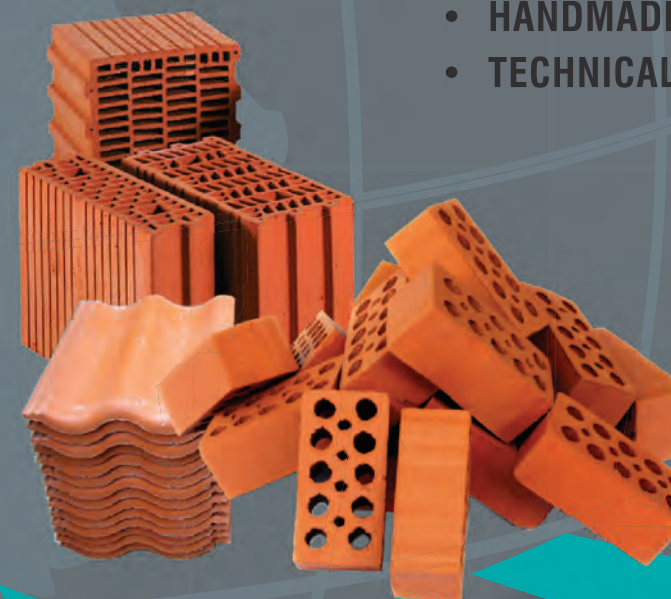
**DIGITAL PLASTICITY AND MOISTURE CONTROL SYSTEM**

**NOVATRONIC C2**

**THE MODERN SOLUTION | DEVELOPED FROM A 35 YEARS EXPERIENCE**

Flexible, configurable, easy to use for preparation and shaping of clay materials for

- **BRICK AND CLINKER WORKS**
- **ROOFING TILE WORKS**
- **HANDMADE BRICK FABRICATION**
- **TECHNICAL CERAMICS**



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## NOVATRONIC C2

### AT CONTINUOUS AND BATCH PROCESS APPLICATION FOR

- quality improvement of the products
- moulding efficiency increase
- energy saving at the dryers
- personnel relief from routine works, particularly easy to use by means of feeding and starting routines

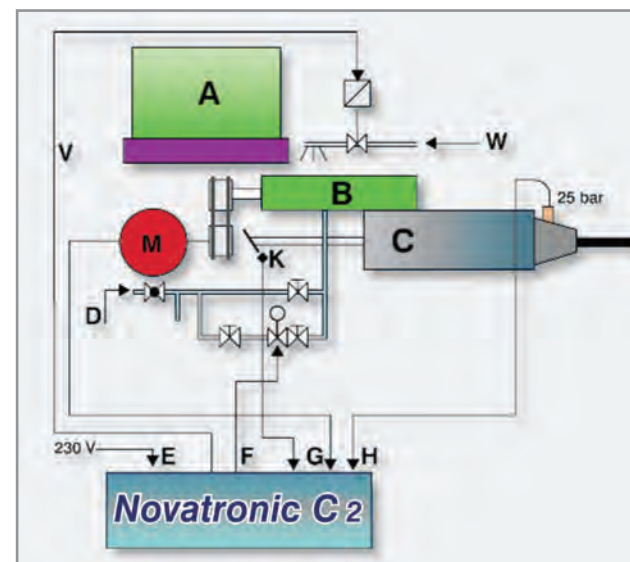
### DETERMINATION OF STIFFNESS OR MOISTURE VIA

- current consumption of the mixer and/or
- flow pressure at the pressing head or
- plasticity and moisture sensors
- feed forward control with the belt weigher signal

### MOISTURE SETTING BY ADDING OF

- steam and/or
- cold or hot water or
- drying agents

### Application example:



- A rotary screen feeder
- B double shaft mixer
- C extruder
- D steam
- E electrical supply: 230 V
- F output: position of steam valve
- G input: value of motor current
- H input: value of flow pressure
- K input: contact mixer clutch
- V output: position of water valve
- W water



double shaft mixer in front of press



rotary screen feeder



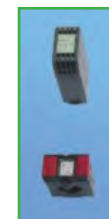
double shaft mixer with strainer



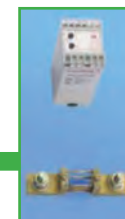
pan mill



single shaft mixer



AC measurement



DC measurement



frequency transformer



infrared moisture sensor



Special solutions



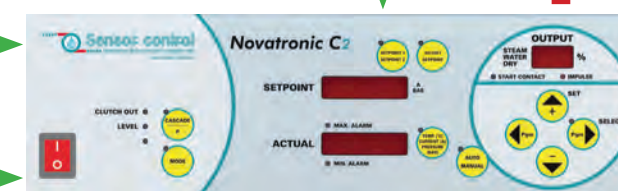
plasticity sensor with display / without display



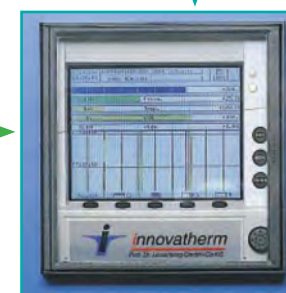
belt weigher



pressure transmitter for vacuum



Novatronic C2



data logger



water dosing unit with dosing valve



water dosing unit with electro-pneumatic valve / WDU - complete piping



steam dosing unit with electro-pneumatic valve / DDU - complete piping



frequency transformer